

Construction Code Communicator



State of New Jersey

Richard J. Codey, Acting Governor

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Accessible Parking: Check Out the Closest Parking Space

It has come to the Department of Community Affairs' attention that there is at least one nationally known small business that has a standard building and site design currently being submitted to municipalities throughout the State. There is a problem, however, with the site design — the accessible parking spaces are often not the closest parking spaces on the shortest accessible route to the accessible building entrance. In fact, in many cases, the accessible spaces can be as many as three parking spaces from the accessible entrance.

Both the Department and the Division of Civil Rights have received complaints from people with disabilities regarding this area of noncompliance, and have been working toward a resolution. Although the complaint is focused on newly constructed stores belonging to a national pharmacy chain, the problem could exist at other, similar sites.

To ensure that the noncompliant parking does not remain, the building subcode official should check the accessible parking spaces at all newly constructed stores. If the accessible parking spaces are not the closest spaces on the shortest accessible route to the accessible building

entrance, the building subcode official should order that the noncomplying spaces be corrected.

If there are questions about this initiative, please contact the Office of Regulatory Affairs at (609) 984-7672.

Source: Emily Templeton
Code Development

ASHRAE Standard 90.1-1999: Energy Code Compliance

For those of you having difficulty using the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 90.1-1999 for energy code compliance, this article will be helpful for the building envelope portion.

Chapter 5 of the ASHRAE 90.1/1999 is divided into four sections: 5.1 – General, 5.2 – Mandatory Provisions, 5.3 – Prescriptive Building Envelope Option, and 5.4 – Building Envelope Trade-Off Option. From these sections, the end result will be to go to Tables B-13 and B-14 in the back of the standard. These tables contain the prescriptive requirements for building envelope design only.

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The breakdown on how to use the tables is as follows: Section 5.1.3 sends the user to Table D for New Jersey requirements, which lists Table B-13 for Newark, and Table B-14 for Atlantic City, Long Branch, and Oakhurst. As per Section 5.3, Tables B-13 and B-14 shall be inserted into Table 5.3 to be used for the Prescriptive Building Envelope Option. Since only four municipalities are listed, the design professional has to base the energy design criteria on the closest listed municipality.

Table 5.3 (from Tables B-13 or B-14) provides the minimum building envelope requirements, very much like a prescriptive package for low-rise residential, but it does not cover the electrical and mechanical provisions of ASHRAE 90.1/1999. The most direct method is to use these tables as a baseline for design criteria by inserting their values into the COMcheck-EZ software package (www.energycodes.gov) and letting the program do all the calculations for not only the building envelope, but the electrical and mechanical portions as well.

Tables B-13 and B-14 follow this article on pages 3 and 4. The symbols below are used in the tables; their corresponding definitions have been inserted for use with the tables.

C-Factor (Thermal Conductance)

Time rate of steady-state heat flow through unit area of a material or construction, induced by a unit temperature difference between the body surfaces. Units of C are Btu/h* ft^2 *°F. Note that the C-factor does not include soil or air films.

F-Factor

The perimeter heat loss factor for slab-on-grade floors, expressed in Btu/h* ft^2 *°F.

Rated R-Value of Insulation

The thermal resistance of the insulation alone as specified by the manufacturer in units of h* ft^2 *°F/Btu at a mean temperature of 75°F. Rated R-value refers to the thermal resistance of the added insulation in framing cavities or insulated sheathing only and does not include the thermal resistance of other building materials or air film. (See thermal resistance.)

Thermal Resistance (R-Value)

The reciprocal of the time rate heat flow through unit area induced by a unit temperature difference between two defined surfaces of material or construction under steady-state conditions. Units of R are h* ft^2 *°F/Btu.

U-Factor (Thermal Resistance)

Heat transmission in unit time through unit area of a material or construction and the boundary of air films induced by unit temperature difference between environments on each side. Units of U are Btu/h* ft^2 *°F.

NR = no insulation requirement

ci = continuous insulation

Lastly, if one chooses not to follow the above, Section 5.4 – Building Envelope Trade-Off Option may be used. This requires hand calculations using Appendix C. These calculations can be tedious to do as a design professional and even more tedious to review as a code official. This will leave the electrical and mechanical portions to factor into the equation, and again leads to the recommendation of using the COMcheck-EZ software package, as it is FREE.

NOTE: Unlike the Council of American Building Officials' Model Energy Code 1995 that requires slab insulation for all low-rise residential structures, ASHRAE 90.1/1999 only requires slab-perimeter insulation for heated slabs in New Jersey. Unheated slabs under ASHRAE 90.1/1999 are not required to have perimeter insulation (unless the design utilizes the insulation to pass the overall energy code compliance in a COMcheck-EZ report).

If you have any questions, you may contact me at (609) 984-7609.

Source: Rob Austin
Code Specialist

Bulletins on the Web

Are your Uniform Construction Code (UCC) bulletins looking tattered and old? Do some of the code references look a little dated? Well, have I got good news for you: We are now in the process of revising all UCC bulletins. Each bulletin will be placed on the Internet as it is formatted, complete with up-to-date code references and new revised dates or updated code reference dates so you can tell what is old, what is new, or what was updated to reflect current model codes. Currently, there are only a handful of bulletins online, but please bear with us as we are working diligently to accomplish this project. In your free time, please visit our web site at www.state.nj.us/dca/codes and view, print, download, etc. the available bulletins to update your UCC.

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ASHRAE 90.1-1999, Table B-13						
Building Envelope Requirements (HDD65: 3601-5400, CDD50: 3601+)						
(Based on Table D-1, US Climatic Data: Newark and Neighboring Municipalities)						
Opaque Elements	Nonresidential		Residential		Semi-Heated	
	Assembly Maximum	Insulation Minimum R-Value	Assembly Maximum	Insulation Minimum R-Value	Assembly Maximum	Insulation Minimum R-Value
Roofs						
--Insulation Entirely Above Deck	U - 0.063	R - 15.0 ci	U - 0.063	R - 15.0 ci	U - 0.218	R - 3.8 ci
--Metal Building	U - 0.065	R - 19.0	U - 0.065	R - 19.0	U - 0.097	R - 10.0
--Attic and Other	U - 0.034	R - 30.0	U - 0.027	R - 38.0	U - 0.081	R - 13.0
Walls, Above Grade						
--Mass	U - 0.151*	R - 5.7 ci*	U - 0.104	R - 9.5 ci	U - 0.580	NR
--Metal Building	U - 0.113	R - 13.0	U - 0.113	R - 13.0	U - 0.134	R - 10.0
--Steel Framed	U - 0.124	R - 13.0	U - 0.064	R - 13.0 plus R - 7.5 ci	U - 0.124	R - 13.0
--Wood Framed and Other	U - 0.089	R - 13.0	U - 0.089	R - 13.0	U - 0.089	R - 13.0
Wall, Below Grade						
--Below Grade Wall	C - 1.140	NR	C - 1.140	NR	C - 1.140	NR
Floors						
--Mass	U - 0.107	R - 6.3 ci	U - 0.087	R - 8.3 ci	U - 0.322	NR
--Steel Joist	U - 0.052	R - 19.0	U - 0.038	R - 30.0	U - 0.069	R - 13.0
--Wood Framed and Other	U - 0.051	R - 19.0	U - 0.033	R - 30.0	U - 0.066	R - 13.0
Slab-On-Grade Floors						
--Unheated	F - 0.730	NR	F - 0.730	NR	F - 0.730	NR
--Heated	F - 0.950	R - 7.5 for 24 inches	F - 0.840	R - 10 for 36 inches	F - 1.020	R - 7.5 for 12 inches
Opaque Doors						
--Swinging	U - 0.700		U - 0.700		U - 0.700	
--Non-Swinging	U - 1.450		U - 0.500		U - 1.450	
Fenestration						
	Assembly Maximum U (Fixed/Operable)	Assembly Maximum SHGC (All Orientations/ North-Oriented)	Assembly Maximum U (Fixed/Operable)	Assembly Maximum SHGC (All Orientations/ North-Oriented)	Assembly Maximum U (Fixed/Operable)	Assembly Maximum SHGC (All Orientations/ North-Oriented)
Vertical Glazing, % of Wall						
-- 0 - 10.0%	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 1.22 U _{oper} - 1.27	SHGC _{all} - NR SHGC _{north} - NR
-- 10.1 - 20.0%	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 1.22 U _{oper} - 1.27	SHGC _{all} - NR SHGC _{north} - NR
-- 20.1 - 30.0%	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 1.22 U _{oper} - 1.27	SHGC _{all} - NR SHGC _{north} - NR
-- 30.1 - 40.0%	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 1.22 U _{oper} - 1.27	SHGC _{all} - NR SHGC _{north} - NR
-- 40.1 - 50.0%	U _{fixed} - 0.46 U _{oper} - 0.47	SHGC _{all} - 0.25 SHGC _{north} - 0.36	U _{fixed} - 0.46 U _{oper} - 0.47	SHGC _{all} - 0.25 SHGC _{north} - 0.36	U _{fixed} - 0.98 U _{oper} - 1.02	SHGC _{all} - NR SHGC _{north} - NR
Skylight with Curb, Glass, % of Roof						
-- 0 - 2.0%	U _{all} - 1.17	SHGC _{all} - 0.49	U _{all} - 1.17	SHGC _{all} - 0.36	U _{all} - 1.98	SHGC _{all} - NR
-- 2.1 - 5.0%	U _{all} - 1.17	SHGC _{all} - 0.39	U _{all} - 1.17	SHGC _{all} - 0.19	U _{all} - 1.98	SHGC _{all} - NR
Skylight with Curb, Plastic, % of Roof						
-- 0 - 2.0%	U _{all} - 1.30	SHGC _{all} - 0.65	U _{all} - 1.30	SHGC _{all} - 0.62	U _{all} - 1.90	SHGC _{all} - NR
-- 2.1 - 5.0%	U _{all} - 1.30	SHGC _{all} - 0.34	U _{all} - 1.30	SHGC _{all} - 0.27	U _{all} - 1.90	SHGC _{all} - NR
Skylight without Curb, All, % of Roof						
-- 0 - 2.0%	U _{all} - 0.69	SHGC _{all} - 0.49	U _{all} - 0.69	SHGC _{all} - 0.36	U _{all} - 1.36	SHGC _{all} - NR
-- 2.1 - 5.0%	U _{all} - 0.69	SHGC _{all} - 0.39	U _{all} - 0.69	SHGC _{all} - 0.19	U _{all} - 1.36	SHGC _{all} - NR

* Exception to 5.3.1.2a applies.

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ASHRAE 90.1-1999, Table B-14						
Building Envelope Requirements (HDD65: 3601-5400, CDD50: 1801-3600)						
(Based on Table D-1, US Climatic Data: Atlantic City, Long Branch, Oakhurst, and Neighboring Municipalities)						
Opaque Elements	Nonresidential		Residential		Semi-Heated	
	Assembly Maximum	Insulation Minimum R-Value	Assembly Maximum	Insulation Minimum R-Value	Assembly Maximum	Insulation Minimum R-Value
Roofs						
--Insulation Entirely Above Deck	U - 0.063	R - 15.0 ci	U - 0.063	R - 15.0 ci	U - 0.218	R - 3.8 ci
--Metal Building	U - 0.065	R - 19.0	U - 0.065	R - 19.0	U - 0.097	R - 10.0
--Attic and Other	U - 0.034	R - 30.0	U - 0.034	R - 30.0	U - 0.081	R - 13.0
Walls, Above Grade						
--Mass	U - 0.151*	R - 5.7 ci*	U - 0.104	R - 9.5 ci	U - 0.580	NR
--Metal Building	U - 0.113	R - 13.0	U - 0.113	R - 13.0	U - 0.134	R - 10.0
--Steel Framed	U - 0.124	R - 13.0	U - 0.084	R - 13.0 plus R - 3.8 ci	U - 0.124	R - 13.0
--Wood Framed and Other	U - 0.089	R - 13.0	U - 0.089	R - 13.0	U - 0.089	R - 13.0
Wall, Below Grade						
--Below Grade Wall	C - 1.140	NR	C - 1.140	NR	C - 1.140	NR
Floors						
--Mass	U - 0.107	R - 6.3 ci	U - 0.087	R - 8.3 ci	U - 0.322	NR
--Steel Joist	U - 0.052	R - 19.0	U - 0.052	R - 19.0	U - 0.069	R - 13.0
--Wood Framed and Other	U - 0.051	R - 19.0	U - 0.033	R - 30.0	U - 0.066	R - 13.0
Slab-On-Grade Floors						
--Unheated	F - 0.730	NR	F - 0.730	NR	F - 0.730	NR
--Heated	F - 0.950	R - 7.5 for 24 inches	F - 0.840	R - 10 for 36 inches	F - 1.020	R - 7.5 for 12 inches
Opaque Doors						
--Swinging	U - 0.700		U - 0.700		U - 0.700	
--Non-Swinging	U - 1.450		U - 0.500		U - 1.450	
Fenestration	Assembly Maximum U (Fixed/Operable)	Assembly Maximum SHGC (All Orientations/ North-Oriented)	Assembly Maximum U (Fixed/Operable)	Assembly Maximum SHGC (All Orientations/ North-Oriented)	Assembly Maximum U (Fixed/Operable)	Assembly Maximum SHGC (All Orientations/ North-Oriented)
Vertical Glazing, % of Wall						
-- 0 - 10.0%	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.49 SHGC _{north} - 0.49	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.49 SHGC _{north} - 0.49	U _{fixed} - 1.22 U _{oper} - 1.27	SHGC _{all} - NR SHGC _{north} - NR
-- 10.1 - 20.0%	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 1.22 U _{oper} - 1.27	SHGC _{all} - NR SHGC _{north} - NR
-- 20.1 - 30.0%	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 1.22 U _{oper} - 1.27	SHGC _{all} - NR SHGC _{north} - NR
-- 30.1 - 40.0%	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 0.57 U _{oper} - 0.67	SHGC _{all} - 0.39 SHGC _{north} - 0.49	U _{fixed} - 1.22 U _{oper} - 1.27	SHGC _{all} - NR SHGC _{north} - NR
-- 40.1 - 50.0%	U _{fixed} - 0.46 U _{oper} - 0.47	SHGC _{all} - 0.26 SHGC _{north} - 0.36	U _{fixed} - 0.46 U _{oper} - 0.47	SHGC _{all} - 0.26 SHGC _{north} - 0.36	U _{fixed} - 0.98 U _{oper} - 1.02	SHGC _{all} - NR SHGC _{north} - NR
Skylight with Curb, Glass, % of Roof						
-- 0 - 2.0%	U _{all} - 1.17	SHGC _{all} - 0.49	U _{all} - 1.17	SHGC _{all} - 0.36	U _{all} - 1.98	SHGC _{all} - NR
-- 2.1 - 5.0%	U _{all} - 1.17	SHGC _{all} - 0.39	U _{all} - 1.17	SHGC _{all} - 0.19	U _{all} - 1.98	SHGC _{all} - NR
Skylight with Curb, Plastic, % of Roof						
-- 0 - 2.0%	U _{all} - 1.30	SHGC _{all} - 0.77	U _{all} - 1.30	SHGC _{all} - 0.27	U _{all} - 1.90	SHGC _{all} - NR
-- 2.1 - 5.0%	U _{all} - 1.30	SHGC _{all} - 0.62	U _{all} - 1.30	SHGC _{all} - 0.27	U _{all} - 1.90	SHGC _{all} - NR
Skylight without Curb, All, % of Roof						
-- 0 - 2.0%	U _{all} - 0.69	SHGC _{all} - 0.49	U _{all} - 0.69	SHGC _{all} - 0.36	U _{all} - 1.36	SHGC _{all} - NR
-- 2.1 - 5.0%	U _{all} - 0.69	SHGC _{all} - 0.39	U _{all} - 0.69	SHGC _{all} - 0.19	U _{all} - 1.36	SHGC _{all} - NR

* Exception to 5.3.1.2a applies.

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Also in the future, we will be updating the formal technical opinions.

NOTE: Bulletins that have updated code references will not be republished; they will be posted on our web site only. Bulletins that needed extensive revisions or substantive changes will be mailed as part of your update package at a later date and then placed on our web site.

If you have any questions, you may contact me at (609) 984-7609.

Source: Rob Austin
Code Specialist

Do You Know Your NRTLs?

There are references to Nationally Recognized Testing Laboratories (NRTLs) in all of the adopted subcodes of the Uniform Construction Code and at *N.J.A.C. 5:23-3.7(a)*, which provide for the local enforcing agency to accept an NRTL report when an alternative material, equipment, or a method of construction is used for all of the subcodes. Acceptance of the NRTL is up to the local code enforcement agency.

The following is a list of organizations currently recognized by the Occupational Safety and Health Administration as NRTLs that may be helpful:

- ☐ Applied Research Laboratories, Inc. (ARL)
- ☐ Canadian Standards Association (CSA)
(also known as CSA International)
- ☐ Communication Certification Laboratory, Inc. (CCL)
- ☐ Curtis-Straus LLC (CSL)
- ☐ Electrical Reliability Services, Inc. (ERS)
[also known as ETI Conformity Services and formerly Electro-Test, Inc. (ETI)]
- ☐ Entela, Inc. (ENT)
- ☐ FM Global Technologies LLC (FM)
(also known as FM Approvals and formerly Factory Mutual Research Corporation)
- ☐ Intertek Testing Services NA, Inc. (ITSNA)
(formerly ETL)
- ☐ MET Laboratories, Inc. (MET)
- ☐ NSF International (NSF)
- ☐ National Technical Systems, Inc. (NTS)

- ☐ SGS U.S. Testing Company, Inc. (SGSUS)
(formerly UST-CA)
- ☐ Southwest Research Institute (SWRI)
- ☐ TUV America, Inc. (TUVAM)
- ☐ TUV Product Services GmbH (TUVPSG)
- ☐ TUV Rheinland of North America, Inc. (TUV)
- ☐ Underwriters Laboratories, Inc. (UL)
- ☐ Wyle Laboratories, Inc. (WL)

If you have any questions on this matter, you may reach me at (609) 984-7609.

Source: Suzanne Borek
Code Assistance Unit

New Fire Extinguisher Requirements and the UCC: How are They Enforced?

Recently, there was an amendment to the Uniform Fire Safety Act requiring portable fire extinguishers to be installed in one- and two-family residences. Be advised that this is to be enforced at change of ownership under the Uniform Fire Code (UFC). This requirement is not to be enforced under the Uniform Construction Code (UCC). There are no requirements contained in the UCC regarding this recent amendment. The requirement does not apply to a transfer between a new home builder and the first buyer. The UFC regulation was required by a recently enacted law. That law does not require fire extinguishers to be provided by the seller in the first sale of a new home.

If you have any questions regarding this matter, please call me at (609) 984-7609.

Source: Carmine Giangeruso
Division of Codes and Standards

Gas Pipe Sizing Confusion

In the Fall 2001 edition of the *Construction Code Communicator*, an article appeared entitled "Sizing of Gas Piping." This article updated the sizing tables for iron piping and schedule 40 standard piping that are listed in Bulletin No. 94-1.

The article stated which tables should be used for gas pipe sizing when the utility supplier provides gas with a specific gravity of 0.6, a system pressure of 0.5 PSIG or less, and a pressure drop of 0.3 inches of water column.

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Fenestration Area

Section 5.3.2.1 of the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 90.1-1999 contains the glazing requirements for energy code compliance in all new buildings except one- and two-family detached dwellings, and multifamily buildings three stories or less in height. This section states, "The total vertical fenestration area, including both fixed vertical fenestration and operable vertical fenestration, shall be less than 50% of the gross wall area. The total skylight area, including glass skylights, plastic skylights with a curb, and all skylights without a curb, shall be less than 5% of the gross roof area." When applying the definition of "fenestration, vertical," the user must go to the definition of "fenestration." Fenestration is all areas (including the frames) in the building envelope that let light in including: windows, plastic panels, clerestories, skylights, glass doors that are more than one-half glass, and glass-block walls.

So, in short, all glazing in the building envelope that lets light in must meet the area requirement of Section 5.3.2.1:

- ☐ Less than 50% of the gross wall area may allow light in
- ☐ Less than 5% of the gross roof area may allow light in

Note: When one sees an italicized word in a section requirement of ASHRAE 90.1/1999, this is a reminder to the user that the word is defined in Chapter 3.

If you have any questions, you may contact me at (609) 984-7609.

Source: Rob Austin
Code Specialist

Here Come the Home Improvement Contractor Registration Requirements!!

As most of you have heard, the Home Improvement Contractor Registration requirements are effective starting January 1, 2006. Beginning on this date, construction permits may not be issued to any home improvement contractor who is not registered with the Division of Consumer Affairs.

The Division of Consumer Affairs has issued every registered contractor a wallet card as proof of registration. Prior to the issuance of a construction permit for a home improvement project, it will be necessary for the permit applicant to present verification of his registration. The

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The article also stated, "When natural gas is delivered under conditions other than those described above, the appropriate gas pipe sizing table should be used."

The tables in that article are to be used as a guide, and do not preclude the use of other tables as listed in the International Fuel Gas Code (IFGC) for other gas pressures and piping materials. Also, the manufacturer's sizing tables may be used.

The IFGC/2003, Section 402.3, Sizing, states three sizing methods that may be used to size gas piping. They are:

1. Pipe sizing tables or sizing equations in accordance with Section 402.4;
2. The sizing tables included in a listed piping system's manufacturer's installation instructions; or
3. Other approved engineering methods.

The 0.3 pressure drop was agreed to by the four gas suppliers in New Jersey at the time Bulletin No. 94-1 was approved. Since that time, some gas suppliers are now permitting the use of a 0.5 pressure drop. If a 0.5 pressure drop is used, then the appropriate table should be used. It is not mandatory that the 0.3 pressure drop be used. Have the contractor supply a letter from the gas supplier stating that the 0.5 pressure drop is acceptable in their service area.

Also, remember that the manufacturer's sizing tables are an acceptable sizing method, especially for sizing corrugated stainless-steel tubing.

As another point of interest, the IFGC/2000 has tables for sizing gas piping for one- and two-pound pressures with a ten percent pressure drop. The IFGC/2003 omitted these two tables from the code. Therefore, it is recommended that Tables 402.3(7) and 402.3(8) from the IFGC/2000 be permitted to be used to size gas piping for one and two pounds with a pressure drop of ten percent.

If you have any questions, you may contact me at (609) 984-7609.

Source: Thomas C. Pitcherello
Code Assistance Unit

Glazing and COMcheck-EZ

When inserting or verifying glazing data (windows, doors, skylights) into COMcheck-EZ for all new buildings (except one- and two-family detached dwellings, and multifamily buildings three stories or less in height), you should know the following:

1. *Total window components, total glazed door components, and total skylight components.*
2. *Type of assemblies* (wood, vinyl, metal, etc.) *for #1.*
3. *Construction details* (i.e., clear/tinted, operable/fixed) *for #1.*
4. *U-factors (values) for #1.* U-factors are developed by the National Fenestration Rating Council (NFRC) using a whole product (glazed assembly) performance energy rating system. For additional information, visit its web site at www.nfrc.org.
5. *Solar heat gain coefficients (SHGCs) of #1.* These are also developed by the NFRC.

A typical window label from the NFRC (see Figure 1) clearly states the U-factors and SHGCs. If a window, glazed door, or skylight does not contain a label, the information can usually be obtained from the manufacturer.

	World's Best Window Co. Millennium 2000+ Vinyl-Clad Wood Frame Double Glazing • Argon Fill • Low E Product Type: Vertical Slider (per NFRC 100-97)
ENERGY PERFORMANCE RATINGS	
U-Factor (U.S./I-P) 0.35	Solar Heat Gain Coefficient 0.32
ADDITIONAL PERFORMANCE RATINGS	
Visible Transmittance 0.51	Air Leakage (U.S./I-P) 0.2
<small>Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. Consult manufacturer's literature for other product performance information. www.nfrc.org</small>	

Figure 1

6. *Projection factors (if applicable) for windows and glazed doors.* Windows and glazed doors with overhangs will produce a projection factor. A

projection factor is nothing more than a ratio; length of the overhang measured from the building surface to the edge of the overhang furthest away from the building (dimension A) divided by the height of the overhang measured from the bottom of the window or glazed door (dimension B). (See Figure 2.)

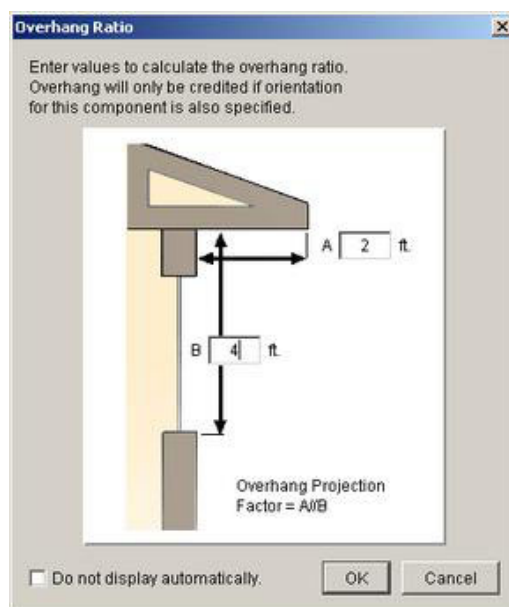


Figure 2

7. *Individual or total gross areas of #1* (i.e., windows, glazed doors, or skylights may be combined if all previous statements have the same values). An example of this would be multiple, double-pane, vinyl windows that are clear and operable, with a 0.35 U-factor, 0.32 SHGC, and 0.50 projection factor. If any of these components differ from another window, then that window must be entered separately.

For additional glazing information, refer to the article entitled "Fenestration Area" in this issue of the *Construction Code Communicator*.

NOTE: COMcheck-EZ can be downloaded for free at www.energycodes.gov. After installation, make sure the program is using ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) Standard 90.1-1999 (this can be verified in the menus at the top of your screen under the heading "Code").

If you have any questions, please call me at (609) 984-7609.

Source: Rob Austin
Code Specialist

(continued from page 6)

contractor must present his wallet card and his certification number must be recorded on the permit application. There are, however, certain instances and types of projects where the contractor is not required to be certified. Any permit applicant who is claiming an exemption shall identify the exemption being claimed in place of the registration number. When a contractor is claiming the "licensed trade" exemption, his licensed trade number should also be recorded in the appropriate section of the permit application. The list of exemptions and codes are as follows:

EXEMPTIONS FROM THE REQUIREMENT FOR CONTRACTOR REGISTRATION	
Exemption	Definition
Registered Builder	Any person required to register pursuant to "the New Home Warranty and Builders' Registration Act," P.L. 1977, c. 467
Homeowner	Any person performing a home improvement upon a residential or noncommercial property he owns, or that is owned by a member of his family, a bona fide charity, or other nonprofit organization
Licensed Trade	Any person regulated by the State as an architect, professional engineer, landscape architect, land surveyor, electrical contractor, master plumber, or any other person in any other related profession requiring registration, certification, or licensure by the State who is acting within the scope of practice of his profession
Condo	Any person who is employed by a community association or cooperative corporation
Utility	Any public utility as defined under R.S. 48:2-13
Contractor with Financing	Any person licensed under the provisions of Section 16 of P.L. 1960, c. 41 (C. 17:16C-77) (Note: These are contractors licensed by the New Jersey Department of Banking and Insurance to offer financing.)
Big-Box Store	Any home improvement retailer with a net worth of more than \$50,000,000, or employee of that retailer who is making or selling home improvements within the person's scope of employment

Should you have any questions on the Home Improvement Contractor Registration requirements, please contact the Division of Consumer Affairs at 1-888-656-6225.

If you have any questions regarding the relationship of this law to the Uniform Construction Code, please contact the Code Assistance Unit at (609) 984-7609.

Source: John N. Terry
Code Assistance Unit

Industrialized/Modular Buildings: Frequently Asked Questions

Questions related to the requirements for submission of documents with the construction permit application, and the municipal enforcing agency's responsibilities with respect to inspection(s) and the issuance of Certificates of Occupancy (COs) (in regards to industrialized/modular buildings) continue to be asked. Although this topic was covered in a previous (Spring 1997) *Construction Code Communicator* article, the questions that continue to be asked frequently are provided below:

Question: What are the requirements for filing documents at the time of application for a construction permit?

Response: This is covered in Part IV, Section 6(A) of the Uniform Administrative Procedures (UAP) of the Industrialized Buildings Commission adopted at *N.J.A.C. 5:23-4A.10*. Following is a summary of the requirements:

1. A statement that the work to be performed under such permit is to include the installation of a certified industrialized/modular building. The statement is to be signed by the applicant or his agent.
2. Schematic floor plan layouts and typical elevations showing the arrangement and layout of the specific building to be manufactured and installed wherein the manufacturer references the building's or building system's approvals of the evaluation agency. Such schematic floor plan layouts and typical elevations need not include sections; construction details; or structural, plumbing, mechanical, and electrical layouts or details typical to the building's or building system's approvals of the evaluation agency. These schematic plans do not need to be prepared or sealed by an architect or engineer.
3. Additionally, the following shall be submitted as required by *N.J.A.C. 5:23-4A.9(a)1*:
 - ☐ Structural connections and connections of systems, equipment, and appliances to be performed on site shall be identified, detailed,

and distinguished from work to be performed in the manufacturing facility.

- ☐ The method of interconnection between industrialized/modular buildings and the location of connections shall be indicated.
- ☐ Documents shall indicate the location of the certification label(s).
- ☐ Documents shall provide or show, as appropriate, occupancy or use, area, height and number of stories, type of construction, and loads (wind, floor, snow, and seismic).

4. Detailed plans shall be prepared for any site-built construction (e.g., foundation system) related to the *installation of industrialized/modular buildings*. These plans shall be prepared, signed, sealed, and dated by a New Jersey P.E. or R.A., and shall meet the applicable requirements of the New Jersey Uniform Construction Code. However, a homeowner who is planning to construct a single-family home himself to be used as his own principal residence is not required to submit signed and sealed plans [*N.J.A.C. 5:23-2.15(e)*].

5. Manufacturer's installation instructions for the *industrialized/modular building* as set forth at *N.J.A.C. 5:23-4A.9(a)2.i(1)*: "Details and methods of installation of industrialized/modular buildings . . . on foundations and/or attachment to each other."

Question: What are the municipal enforcing agency's responsibilities with respect to inspection(s) and the issuance of a CO?

Response: This is covered in Part IV, Section 6(B), (C), (D), and (E) of the UAP of the Industrialized Buildings Commission, and *N.J.A.C. 5:23-2.22*. Following is a summary of the requirements:

1. Verification/confirmation of attachment of insignia (label) of certification; i.e., Industrialized Building Commission's label.

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2. Verification/confirmation of attachment of the manufacturer's data plate (product control and identification - *N.J.A.C. 5:23-4A.8*) to evaluate the suitability of the modular building for the particular location.
3. The local enforcement agency shall inspect work performed on site including foundations and structural, mechanical, plumbing, and electrical connections for compliance with the UAP.
4. The local enforcement agency shall inspect all industrialized/modular buildings upon, or promptly after, installation at the building site to determine whether all site-built work is in accordance with the plans filed with the permit application, the manufacturer's installation instructions, and the conditions listed on the manufacturer's data plate. This may include tests for tightness of plumbing connections done on site, for malfunctions in the electrical system (nondestructive testing by appropriate subcode official), and a visual inspection for damage and obvious nonconformity with the approved plans or the code.
5. The local enforcement agency shall issue a CO for the certified industrialized/modular building after it has been installed and inspected pursuant to the UAP, provided that any industrialized/modular building found not to comply with the code shall be brought into compliance before such CO shall be issued.
6. When the local enforcement agency is making an inspection and finds that the building contains violations to the UAP in work covered by the third-party inspection agency's approval, it shall report the details of such violations in writing to that inspection agency. Where violations compromise the life safety of occupants, a CO shall not be issued and the building shall not be occupied before such hazards are corrected. If the violations do not compromise the life safety of occupants, a Temporary Certificate of Occupancy shall be issued.

For the UAP of the Industrialized Buildings Commission, a list of approved inspection and evaluation agencies, and a list of approved manufacturers, visit its web site at www.interstateibc.org.

In case of any questions, please contact me at (609) 984-7974.

Source: Paul Sachdeva, P.E.
Industrialized Buildings Unit
Bureau of Code Services

Moisture Vapor Retarder Installation and the Energy Subcode

Recently, questions have arisen about moisture vapor retarder (MVR) (vapor barrier) installation, how it relates to *N.J.A.C. 5:23-3.18* (the Energy Subcode), and how it relates to the New Jersey Energy Star® Homes program.

As stated in the Spring 2004 *Construction Code Communicator* article, "New Jersey Energy Star® Homes and the Energy Subcode," the local construction department needs to look for only two things: 1) The "Builder Acknowledgement Form" at the time of permit application and 2) the "Home Energy Rating Scale" (HERS) compliance certificate, or a "passing" final inspection report in lieu of the HERS certificate. This eliminates the need for the local construction department to inspect items covered by the Energy Subcode.

MVRs are a requirement of Section R322 of the the International Residential Code (IRC) 2000, which is the adopted One- and Two-Family Dwelling Subcode (*N.J.A.C. 5:23-3.21*). In addition, MVRs are required by the Building Subcode (*N.J.A.C. 5:23-3.4*) regardless of the method chosen for Energy Subcode compliance.

Therefore, based on the information above, the obligation of the local construction department to inspect for MVRs remains, even in New Jersey Energy Star® Homes.

As stated above, MVRs are required by IRC/2000, Section R322, and are to be installed on the "warm-in-winter" side of the insulation in all framed walls, floors, roofs, and/or ceilings comprising elements of the building thermal envelope. MVRs are defined in Chapter 2 of the IRC/2000; however, the definition is a little confusing. The MVR definition has been clarified in the IRC/2003. The IRC/2006 retains the IRC/2003 definition. Because the State of New Jersey will adopt the IRC/2006 in the near future, the MVR definition in the IRC/2003 may be used to provide clearer, more complete information.

The IRC/2003 defines MVRs as "a vapor-resistant material, membrane, or covering such as foil, plastic sheeting, or insulation facing having a permeance rating of 1 perm or less when tested in accordance with the desiccant method using Procedure A of ASTM E96. Vapor retarders limit the amount of moisture vapor that passes through a material of wall assembly." The definition defines materials that are placed *behind* the wallboard; therefore, an MVR is required to be on the inside of the framed wall in order not to allow moisture to enter the wallboard. Lastly, this definition does not define permeance-rated paint because paint is traditionally placed on the interior side of wallboard (facing a room).

Note: Per the IRC/2000, Section R322, installation of cellulose insulation must have a separate material, membrane, or covering installed on the warm-in-winter side having a permeance rating of 1 perm or less.

If you have any questions, you can contact me at (609) 984-7609.

Source: Rob Austin
Code Specialist

Wall Sheathing Fasteners

It has been brought to the Department of Community Affairs' attention that some fasteners used for the installation of wall sheathing to framing are not of adequate size as per the International Residential Code (IRC) 2000, Tables R602.3(1) and R602.3(2).

Table R602.3(1) of the IRC/2000 requires that wood structural panels which are 5/16 and 1/2 inch in thickness be fastened with 6d common nails (0.113 inch in diameter) minimum. Table R602.3(2) of the IRC/2000 allows for the use of nails between the diameters of 0.097- to 0.099-inch thick. Furthermore, International Code Council Evaluation Report ESR-1539, which was reissued on September 1, 2005, continues to allow the use of alternate fasteners equal to or exceeding the lateral strength of connections found in the IRC/2000. ESR-1539 lists the smallest nail diameter as 0.092 inch with a length of 2-1/4 inches. Additionally, all power gun manufacturers listed in ESR-1539 specify a minimum nail diameter of 0.092 inch in their specifications.

Through investigation, the Department has found some fasteners that are undersized (typically 0.085 inch in diameter) as per the IRC/2000 and ESR-1539. Please be advised, contractors are not permitted to use the undersized nails unless the design professional submits a testing report prepared by a nationally recognized testing agency. The only way to determine the size of the fasteners is to look at the label on the fastener box. The label should clearly state the diameter and length of the fastener. If the fastener is undersized, inform the contractor of this violation and contact me with the manufacturer's information. We will contact the manufacturer and notify them of the problem.

If you have any questions on this, please direct your calls to me at (609) 984-7609.

Source: Marcel Iglesias
Code Assistance Unit

New Jersey Register Adoptions

Date: July 18, 2005
Adoption: 37 NJR 2673(b)
Summary: The adopted amendment at *N.J.A.C. 5:23-2.14* revises the rule concerning construction permits to require permits for the construction, enlargement, alteration, reconstruction, or demolition of a retaining wall or series of retaining walls having a total height of four feet or greater, or a retaining wall less than four feet providing structural support for a foundation.

Date: October 17, 2005
Adoption: 37 NJR 3974(a)
Summary: The adopted amendments at *N.J.A.C. 5:23-3.13* allow the submission of State-sponsored model code change proposals by the general public. In addition, the adopted amendments change the submission period for State-sponsored model code change proposals to coincide with the development cycle of the model codes. Finally, the adopted amendments provide a process for submitting code change proposals for other State-developed subcodes.

Date: October 17, 2005
Adoption: 37 NJR 3974(b)
Summary: The adopted amendment at *N.J.A.C. 5:23-3.15* requires a minimum earth cover of six inches for building sewers that discharge to private sewage disposal systems.

Source: Megan Sullivan Czyz
Code Development Unit

Occupant Intervention and ASHRAE Standard

90.1-1999

Chapter 9, the lighting section of the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 90.1-1999, contains a section for automatic lighting shutoff (Section 9.2.1.1). This provision applies to interior lighting in buildings larger than 5,000 ft². The lighting is to be controlled with an automatic control device to shut off the building lighting in all spaces by one of three options: 1) a time-of-day operated control device that turns the lighting off at specific programmed times (an independent program schedule is required for areas of more than 25,000 ft², but not more than one floor); 2) an occupant sensor that turns the lighting off within 30 minutes of the last occupant's departure; or 3) occupant intervention.

The question arises as to what is "occupant intervention?" As used in the ASHRAE standard, occupant intervention is not what you or I would call occupant intervention. This option is listed under automatic lighting

Non-Required Fire Protection Systems: How Much is Enough?

I get calls from contractors, as well as officials, asking what requirements need to be complied with when an applicant voluntarily chooses to install a fire protection system (non-required systems).

I direct them to International Building Code Section 901.2, Fire Protection Systems. The exception commenting on non-required systems points out that only the work being performed needs to comply with code. For example, if a tenant having five offices wishes to install a fire detection system in three of them, then wiring, spacing of detectors, etc. must comply with the applicable code in the three offices. The official does not have the authority to require additional detectors in the other two offices. Simple, isn't it?

Should you have any questions, I can be reached at (609) 984-7672.

Source: Gerald E. Grayce
Office of Regulatory Affairs

Parking Garages: Minimum Entrance Height

Recently, the Department of Community Affairs has received several complaints about vehicular entrances to parking garages that have not been constructed to meet the height requirements of the Barrier Free Subcode. The technical design standard adopted for use in the Barrier Free Subcode is the International Code Council/American National Standards Institute (ICC/ANSI) A117.1.

ICC/ANSI A117.1, Section 502.5, entitled "Parking Spaces — Vertical Clearance," requires that "parking spaces for vans shall have a vertical clearance of 98 inches minimum at the space and along the vehicular route thereto."

Once the parking garage has been constructed, it is simply not possible to correct an entrance that is too low, but the low entrances prevent the use of the garage by people with disabilities who rely on vans. The Barrier Free Subcode (at *N.J.A.C.* 5:23-7.9) allows accessible van spaces to be clustered on a single parking level; there is no permission for drivers of vans to be precluded from using a parking garage at all.

Any questions about the requirements for accessible parking — in or out of parking garages — should be directed to the Code Assistance Unit at (609) 984-7609.

Source: Emily W. Templeton
Code Development

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shutoff. The definition of an automatic control device is a device capable of **automatically** turning loads off and on without manual intervention; it is definitely not a typical light switch. Essentially, occupant intervention is another form of a sensor. Since option 2 implies that an occupant sensor is some type of motion sensor, option 3 was meant as a catch-all statement for other signaling control devices or alarms that indicate the area is unoccupied and automatically shut off the lighting.

Note: Per Section 9.2.1.1, there is an exception that states lighting intended for 24-hour operation does not require an automatic control device.

If you have any questions, you can contact me at (609) 984-7609.

Source: Rob Austin
Code Specialist

Ladders, Lighting, and Time Clocks . . . Oh, My!

Warning: The installation of certain pool items have been found not to be what you think they are!

The 2002 National Electrical Code (NEC), Section 110.3(B), "Installation and Use," requires that equipment be installed and used in accordance with the instructions included in the listing and labeling.

Currently, some pool equipment supplied by pool installers is listed and labeled, but is not being installed for its listed use. For example, installers have been supplying plastic and fiberglass ladders with metal handrails to customers, and stating that, because they are all plastic or fiberglass, there are no requirements for bonding. This is not always the case. Section 680.26(B)(3) states that all metal fittings within, or attached to, the pool structure shall be bonded. Isolated parts that are not over 100mm (four inches) in any dimension and do not penetrate into the pool more than 25mm (one inch) shall not require bonding. Therefore, any plastic or fiberglass ladder that has metal handrails which exceed the four inches and are within the pool by more than one inch as specified in Section 680.26(B)(3) **ARE NOT** isolated and **ARE** required to be bonded.

Another item not always being used in accordance with the listing and labeling instructions is a light that is being sold to be installed over the side wall of permanently installed, above-ground pools. There's only one small catch . . . these lights are listed to be used on storable pools, **NOT** on permanently installed, above-ground pools!

The third piece of equipment is an Intermatic Timeclock that is listed and labeled for portable and storable pools. The time clock by Intermatic is being installed in permanently installed, above-ground pools.

The point of all this, you ask? . . . Check the manufacturer's installation instructions! There is more to equipment than meets the eye!!

If you have any questions on this matter, you may reach me at (609) 984-7609.

Source: Suzanne Borek
Code Assistance Unit

REScheck-Web: Starting Point

It has come to our attention that there is confusion with the initial code selection when using the web-based version of REScheck, REScheck-Web. The following instructions should be helpful in choosing the correct "Code" in the drop-down menu.

The web-based version requires the user to start at the same place as the downloadable version, the "Code" menu. The user should start by visiting the REScheck-Web homepage at <http://energycode.pnl.gov/REScheckWeb/>. In the "Select Code and Location" box in the "Code" drop-down menu, select "New Jersey" (*do not select* "1995 MEC"). Once this is chosen, the second drop-down menu, "State," will become gray so that no other state can be selected, as the New Jersey Code is specific. Next, click on "Start REScheck-Web." You will notice that the "Code" and "State" drop-down menus have been automatically updated in the "Project" section of the new page.

Note: The "Code" menu in the downloadable version of REScheck is located on the menu bar. Again, New Jersey should be selected and not 1995 MEC.

If you have any questions on this matter, please contact me at (609) 984-7609.

Source: Rob Austin
Code Specialist

SPECIAL ALERT

Special Alerts to be Published in the DCA Document Library

Over the years, the Department of Community Affairs has provided code clarification, subject-specific instruction, and other important information to New Jersey's licensed construction code community by way of a mass U.S. Postal Service mailing.

Beginning in the very near future, the Department will use e-mail alerts through the Document Library to provide such clarification, instruction, or otherwise important information, and will no longer send this information to you in paper form through the U.S. Postal Service.

In order to continue receiving this important information, you will need to subscribe to the Document Library. The subscription instructions are provided in the article entitled, "The DCA Document Library: Codes and Standards' Online Reference Room," which appears elsewhere in this newsletter. Please subscribe at your earliest opportunity to avoid missing out on important information from the Department.

If you have questions regarding this article or experience problems with the Document Library, please feel free to e-mail the PermitsNJ Technical Support Team at permitsnj@dca.state.nj.us.

Source: Berit Osworth
PermitsNJ Technical Support Team

Standard Forms Camera-Ready Art Now Supplied through the DCA Document Library

When substantive changes were made to a Uniform Construction Code (UCC) Standard Form in the past, camera-ready art was sent via U.S. Postal or special messenger service to each and every municipal construction code enforcement office.

Due to the sizable nature of such an undertaking, the Department of Community Affairs refrained from making the little changes that cropped up, and simply waited until modifications of substance were needed before undertaking the full production and distribution of camera-ready art.

With the advent of PermitsNJ, the Department's new construction code enforcement management system, and its companion Document Library, the Department is able to make all changes -- big and small -- to the Standard Forms and post the updated camera-ready art in the

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Document Library, ready for downloading as your individual needs arise.

For this reason, the Department will no longer be sending UCC Standard Form camera-ready art to municipal construction code enforcement offices via U.S. Postal or special messenger service. When you need to reorder preprinted stock from your local printing supplier, simply log onto the MyNewJersey portal and download camera-ready art for the form or forms you need.

To access the Document Library, follow the instructions provided in the article entitled, "The DCA Document Library: Codes and Standards' Online Reference Room," which appears on the next page.

If you have questions regarding this article or experience problems with the Document Library, please feel free to e-mail the PermitsNJ Technical Support Team at permitsnj@dca.state.nj.us.

Source: Berit Osworth
PermitsNJ Technical Support Team

Use Group Classification and Sprinkler Exceptions for Residential Buildings

The above-titled article was originally written in 1999 due to the discovery of residential buildings having incorrect Use Group (the term in 1999, now just Group) classifications. These problems occurred in various sections of the State. The design professional's R-3 Group classification was being wrongly accepted by some officials, when the correct classification was Group R-2. As a result, required fire sprinkler systems were not installed.

Additionally, in some cases, the design professional correctly designated buildings as R-2s. Some fire subcode officials incorrectly interpreted Section 904.9 of the 1996 Building Officials and Code Administrators (BOCA) National Building Code, and again did not require fire sprinkler systems.

I had hoped the article clarified these issues. Unfortunately, it did not for all officials.

My office has recently discovered buildings having incorrect Group (the new term) classifications. The result: required fire sprinklers were not installed. A few officials are still neglecting to enforce 2000 International Building Code (IBC) Section 903.2.8. It is the exact same language as was in the 1996 BOCA. Required fire sprinklers are again not being required by officials. These issues were

discovered in both the northern and southern areas of the State.

The 1999 article has been updated and the substance of it is being reprinted. Please take heed of the issues. Failure to properly enforce these sections was, and is, a very serious matter.

USE GROUP CLASSIFICATION AND SPRINKLER EXCEPTIONS FOR RESIDENTIAL BUILDINGS:

There have been errors made in applying the sprinkler exception for certain residential buildings. There are two steps to deciding whether a residential building is exempt from the suppression requirement contained in Section 903.2.8 of the IBC/2000. The first step is to determine the proper use group classification for the building. The second is to check whether the conditions for exemption in Section 903.2.8 have been met.

1. Is it (Use) Group R-3 or R-2?

It is clear that a two-story residential building having two or more dwelling units per floor and having a means of egress through an enclosed corridor or stair is Group R-2. Take the same building and eliminate the front exterior wall, making the means of egress an exterior stair open in the front and enclosed on three sides. Architects sometimes erroneously classify these buildings as Group R-3. The means of egress includes exit access, exit, and exit discharge. If any portion of a means of egress of a unit is shared with more than two units, the use group is not R-3; it is R-2.

Example: Two families living on the second floor exit their units and egress via a stair to a first-floor landing. Two families living on the first floor exit their units and also egress onto a common landing, and then use a single stair to grade. The commonality of the egress is a factor to be evaluated when determining the (use) group of a residential building.

2. Are the conditions for sprinkler exception met?

Section 903.2.8 requires that "an automatic fire suppression system shall be provided throughout all buildings with an occupancy in Group R-2." The exception to Section 903.2.8 has been read incorrectly by some readers. The exception plainly states that it applies only to "buildings which do not exceed two stories, including basements which are not considered as a story above grade, and with a maximum of 12 dwelling units per fire area. Each dwelling unit shall have at least one door opening to an exterior exit access that leads directly to the exits required to serve the dwelling unit."

To qualify for the exception, the building must meet all elements of the exception. If the building meets only one element, the exception cannot be applied. For

The DCA Document Library: Codes and Standards' Online Reference Room

Even if you are not quite ready to jump in and start using PermitsNJ, you may still take advantage of its associated Document Library, the Department of Community Affairs' new Codes and Standards Online Reference Room.

What is it? The Document Library is a restricted channel on the State's MyNewJersey portal. The portal is simply the platform through which the State of New Jersey provides a variety of e-government services and online information. Routing access to PermitsNJ, and its associated Document Library, through the portal allows us to take advantage of a technology platform that is easy to use, efficient, and most importantly, secure. Again, the Document Library is a restricted channel on the State's MyNewJersey portal.

What will I find there? The Document Library contains information specific to using PermitsNJ and information about New Jersey construction code enforcement in general. The Document Library now contains Uniform Construction Code Standard Forms camera-ready art, current and back issues of the *Construction Code Communicator*, and special alerts to construction code enforcement staff throughout New Jersey. And over time, it will contain so much more.

How do I get in? The following three "keys" will open the Department's Document Library door to you: 1) You must have Internet access; 2) you must be a registered MyNewJersey portal user; and 3) you must be an authorized user to access the Department's Document Library. Note: If you are a construction official, subcode official, or technical assistant actively employed by any of New Jersey's municipal or Interlocal Construction Code Enforcement offices, you are eligible for authorization. By completing and returning the following request form, you will receive an invitation to use the system.

If you have questions regarding this article or experience problems with the Document Library or Online Reference Room, please feel free to e-mail the PermitsNJ Technical Support Team at permitsnj@dca.state.nj.us.

Source: Berit Osworth
PermitsNJ Technical Support Team

Please provide me with access to DCA's Document Library.

Name (Last, First, MI): License or ID no:

Municipality(ies) in which I work: Work Telephone:

Title:

(circle all that apply)

<i>Construction Official</i>	<i>Technical Assistant</i>	<i>Subcode Official</i>
<i>-Building-</i>	<i>-Electrical-</i>	<i>-Plumbing-</i>
		<i>-Fire Prot.-</i>
		<i>-Elevator-</i>

e-Mail Address:

Return to: NJ Department of Community Affairs
Division of Codes and Standards
Attention: Charles Pierson Jr.
P.O. Box 802
Trenton, NJ 08625-0802

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example, a two-story Group R-2 building with a basement does not fall under the exception. Any building that exceeds two stories requires a fire sprinkler suppression system. The basement, while not a story above grade, is considered a story for the purpose of applying this section. Therefore, in the above example, the building has three stories and a fire sprinkler is required.

The exception also states that egress from a dwelling unit must go to an exterior exit access. In most cases, this means that the door to the dwelling unit opens onto an exterior landing or balcony, onto an exterior stair to grade, or directly to grade. If the exit path is not an exterior exit access, this part of the exception is not met and fire sprinklers are required.

This code section has been in the BOCA National Building Code since the adoption of the 1993 edition. I hope this clarifies the application of the sprinkler exception. If you have any questions, please contact me at (609) 984-7672.

Source: Gerald Grayce
Office of Regulatory Affairs

Visible Alarm Notification – IBC/2000 and ICC/ ANSI A117.1-1998



Section 907.9.1.3 of the International Building Code 2000 requires occupancies of Group R-2 that are required to have a fire alarm system as per Section 907.2.10.1.2 to be provided with the capability to support visible alarm notification appliances within all of the dwelling units.

This means that the wiring methods associated with the visible alarm notification appliance are to be treated as an adaptable feature. This is similar to providing grab bars, which are an adaptable feature; the supportive blocking is installed in the wall and the actual grab bar is installed when needed by the occupant. Based on the same principle, the wiring for the existing notification appliance must be provided for the future installation of a visible alarm notification appliance.

Note: Section 907.2.10.1.2 requires Groups R-2, R-3, R-4, and I-1 to have single- or multiple-station smoke alarms installed and maintained regardless of occupant load.

Source: John N. Terry
Code Assistance Unit

FIRST-CLASS MAIL

Department of Community Affairs
Division of Codes and Standards
101 South Broad Street
PO Box 802
Trenton, NJ 08625

